
Nolina cismontana (Nolinaceae), a New Species
Name for an Old Taxon

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ABSTRACT. *Nolina parryi* subsp. *wolfii* is shown to be a synonym of *N. parryi* subsp. *parryi*. Consequently, *N. parryi* subsp. *parryi* sensu Munz has been misinterpreted and is without a name. *Nolina cismontana* is proposed as the name for this undescribed taxon.

It is necessary to publish a new name for *Nolina parryi* S. Watson sensu Munz before volume 11 of the *Flora of North America* is published. The junior author studied the California *Nolina* species complex for his M.S. thesis (Dice, 1988). He determined that the name *N. parryi* was assigned by western botanists to the wrong plants, and consequently these plants are unnamed.

Munz (in Munz & Roos, 1950) described *Nolina parryi* subsp. *wolfii* based on plants from the Kingston Range in the eastern Mojave Desert and the San Jacinto/Santa Rosa Mountains along the northwestern edge of the Colorado Desert. Plants fitting this description are now known to extend from the Kern Plateau in southern Tulare County south to the Laguna and Pinyon Mountains of San Diego County, California. The taxon is found in the drier parts of the Peninsular Ranges, along the western edge of the Colorado Desert and in the desert ranges of the Mojave Desert. This means that by this interpretation subspecies *parryi* occurs in the coastal drainages below 3000 feet from Ventura to San Diego counties and west of subspecies *wolfii*. There is no evidence that Munz ever examined the type of *N. parryi*. Dice examined the holotypes and isotypes of subspecies *parryi* and subspecies *wolfii*. The holotype of subspecies *parryi* and Watson's (1879) publication of its description indicate that *N. parryi* came from the desert east of San Bernardino and not from the coastal side of the mountains. The leaves on this holotype and isotype are wider than what Munz allows for his subspecies *parryi* and would key out in his keys to subspecies *wolfii*. Subspecies *wolfii* is a synonym for Watson's typical *N.*

parryi, and the plants from the coastal drainages that Munz was calling subspecies *parryi* are without a name.

Dice (1988) showed that there are quantitative morphological traits such as leaf number per rosette, stem length, leaf width, panicle length, panicle stalk diameter, and bract size that help to differentiate *Nolina parryi* from *N. cismontana*. Besides the geographical difference stated above, *N. parryi* is found on granite and granodiorite-derived substrates in the xeric pinyon-juniper woodlands, while *N. cismontana* occurs principally on sandstone and shale substrates of chaparral vegetation. The morphological, geographical, and ecological differences to us warrant the recognition at the species level of the coastal foothills and valleys taxon.

***Nolina cismontana* Dice, sp. nov.** TYPE: U.S.A. California: Orange Co., Santa Ana Mts., Trabuco Canyon, 350 m, 1986, *J. Dice & T. Oberbauer 650* [staminate] (holotype, SD 121705; isotypes, ARIZ, NY, RSA, UC).

A specie *Nolina parryi* caulibus brevibus, generaliter < 0.4 m longis; rosulis amplitudine mediocribus, generaliter ex 30-90 foliis constantibus; foliis latitudine mediocribus, 12-30 mm latis accurate super basem expansum; pedunculo inflorescentiae 14-35 mm diametro basi differt.

Shrubs to subshrubs, 0.5-1.5 m tall, few- to many-branched from a woody caudex, branching both above and below ground, with 1-30(-75) leaf rosettes; mature rosettes 0.7-1.6 m diam. with 30-90 leaves per rosette. Leaves green (occasionally glaucous) lance-linear, 0.5-1.4 m long at maturity and 1.2-3 cm wide just above the expanded leaf base; leaf bases white, deltoid-rhomboidal, spoon-shaped, 4-11.5 cm long and 3-8.5 cm wide at base; leaf margins serrulate. Inflorescences large, 1.3-3.1 m tall, 10-40 cm wide, with 25-75 secondary panicle branches, longest secondary branch 13-35 cm long, longest tertiary branch 1-10 cm

long; panicle stalks 1.4–3.5 cm diam. at base, barren the lowermost 0.4–1.5 m; bracts and bractlets large, conspicuous, persistent, lance-linear to deltoid-lanceolate, 10–40 cm long, 1.5–5 cm wide at base (bract subtending lowermost secondary panicle branch); pedicels 2–4 mm long, jointed near middle. Tepals cream to white, ovate, apiculate-mucronate to rounded and introrsely papillate at tip. Staminate flowers broadly campanulate to recurved at anthesis, with outer tepals 3–5 mm long, 1.5–2.5 mm wide; stamens 2–4 mm long; ovaries on short stalks above perianth, 0.5–1.5 mm tall and 1–1.5 mm diam.; styles and stigmatic surfaces greatly reduced or wanting. Carpellate flowers with outer tepals 3–4 mm long, 2 mm wide, and erect to campanulate at anthesis; staminodes 1–2 mm long; ovary on short stalk above perianth, 3 mm tall and 2–3 mm diam.; styles 3, closely appressed but distinct, < 0.5 mm long; stigmatic surface well developed. Fruits papery, 3-lobed capsules, 8–12 mm tall and slightly broader, emarginate at base and apex, bursting irregularly. Seeds ovoid to oblong, 4–5 mm long, 3–4 mm diam.; seed coats reddish brown. N = 19 (Lenz, 1950).

Distribution. Cismontane southern California, on dry chaparral-covered slopes extending from the foothills of the Santa Ynez Mountains in western Ventura County, south through the Simi Hills and Santa Ana Mountains to the foothills west of the Palomar and Cuyamaca Mountains in San Diego County. Elevation 230–1275 m.

Etymology. The specific epithet “cismontana” means this side of the mountain and refers to the hillside slopes of the foothills of the southern coastal range, where it commonly occurs.

Common name. Chaparral nolina, chaparral beargrass.

Paratypes. U.S.A. **California:** Orange Co., Santa Ana Mountains, elev. 365 m, 1986, J. Dice & T. Oberbauer 651 [pistillate] (ARIZ, NY, RSA, SD, UC).

With the recognition of *Nolina cismontana*, the synonymy for *Nolina parryi* has to be updated.

Nolina parryi S. Watson, Proc. Amer. Acad. Arts 14: 247. 1879. *Nolina bigelovii* (Torrey) S. Watson var. *parryi* (S. Watson) L. D. Benson, Bull. Univ. Arizona 15: 384. 1945. *Nolina bigelovii* subsp. *parryi* (S. Watson) E. Murray, Kalmia 13: 10. 1983. TYPE: U.S.A. California: [probably Riverside Co.] desert E of San Bernardino, *Parry s.n.* (holotype, GH; isotype, MO).

Nolina parryi S. Watson subsp. *wolfii* Munz in Munz & Roos, Aliso 2(3): 221. 1950. *Nolina bigelovii* var. *wolfii* (Munz) L. D. Benson, in Benson & Darrow, Trees Shrubs Southwest. Deserts 72. 1954. *Nolina wolfii* (Munz) Munz, Fl. S. Calif. 865. 1974. *Nolina bigelovii* (Torrey) S. Watson subsp. *wolfii* (Munz) E. Murray, Kalmia 13: 10. 1983. TYPE: U.S.A. California: eastern San Bernardino Co., Mojave Desert, Kingston Mountains, 0.5 mi. W of Beck Spring (Crystal Spring on herbarium labels), *Wolf 7655* (holotype, RSA; isotypes, A, DS, F, GH, JEPS, LA, MO, NY, POM, SD, UC, US).

The key to *Nolina* in *The Jepson Manual* (Dice, 1993) does not reflect the presence of *N. cismontana*, although there is mention of an undescribed species under the description of *N. parryi*. The key below is adapted from Dice (1988).

KEY TO THE SPECIES OF *NOLINA* IN CALIFORNIA

- 1a. Old leaf margins fibrous-shredding; inflorescence bracts deciduous; seeds gray *Nolina bigelovii*
- 1b. Leaf margins minutely and persistently serrate; inflorescence bracts persistent; seeds reddish brown.
 - 2a. Aboveground stems not obvious; mature rosettes with < 45 leaves; leaf bases barely expanded; inflorescences < 1.6 m, base of stalk 0.5–1.8 cm diam.; bracts small, inconspicuous *Nolina interrata*
 - 2b. Aboveground stems obvious; mature rosettes with 45–200 leaves; leaf bases strongly expanded; inflorescences 1.6–4 m, base of stalk 1.4–9 cm diam.; bracts large, papery.
 - 3a. Stems 0.3–2.1 m long; rosettes with 65–200 leaves; leaves 20–40 mm wide just above expanded leaf base; inflorescence stalks 2.6–9 cm diam. at base *Nolina parryi*
 - 3b. Stems up to 0.4 m long; rosettes with 30–90 leaves; leaves 12–30 mm wide just above expanded base; inflorescence stalks 1.4–3.5 cm diam. at base *Nolina cismontana*

Conservation status. *Nolina cismontana* was recently added to the U.S. Fish and Wildlife Service’s (USFWS) list of plant taxa native to the United States that are being reviewed for possible addition to the List of Endangered and Threatened Plants under the Endangered Species Act of 1973, as amended (Department of the Interior, Fish and Wildlife Service, 1993). In USFWS’s most recent review, *N. cismontana* (as *Nolina* sp. nov. ined., chaparral bear-grass from California) is treated as a Category 2 candidate species for listing under the Federal Endangered Species Act. Category 2 candidate species are “taxa for which information now in the possession of the Service indicates that pro-

posing to list as endangered or threatened is possibly appropriate, but for which sufficient data on biological vulnerability and threat are not currently available to support proposed rules." *Nolina cismontana* is also deserving of consideration from the California Department of Fish and Game for possible inclusion in their list of plant species of special concern and by the California Native Plant Society for inclusion in their Inventory of the Rare and Endangered Vascular Plants of California.

Throughout most of its range, from Ventura County through northern San Diego County, *Nolina cismontana* is threatened by residential and commercial land development. At present the only protected populations of significant sizes are the Viejas Mountain population in southern San Diego County, which lies within the U.S. Forest Service's Cleveland National Forest; the California Department of Fish and Game's Coal Canyon Ecological Reserve in the Santa Ana Mountains of eastern Orange County; and scattered holdings within the Cleveland National Forest in the Santa Ana Mountains.

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